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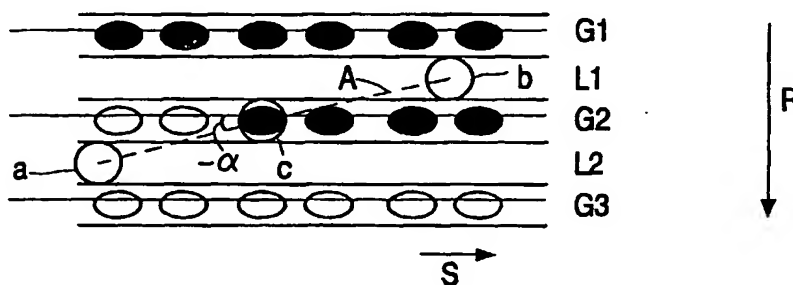
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(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: A method of scanning an optical recording medium having data storage regions arranged in generally concentrically arranged track sections therein, the method comprising rotating the optical recording medium such that the disk moves in a spinning direction (S) with respect to a scanning spot, and maintaining tracking in a radial sense using a push-pull radial error signal generated by detecting push-pull signals from at least three radiation spots formed on the disk, a main spot (c), a forward spot (a) and a rear spot (b), to move the spots in a radial scanning direction (R) during a plurality of rotations of the disk, wherein the forward spot scans the optical recording medium in a position which is tangentially offset from the main spot in a direction opposite to the spinning direction, and the rear spot scans the optical recording medium in a position which is tangentially offset from the main spot in a direction coinciding with the spinning direction, characterized in that the method comprises positioning the three radiation spots with radial offsets such that the forward spot is located in a position which is radially offset from the main spot in a direction coinciding with the radial scanning direction, and such that the rear spot is located in a position which is radially offset from the main spot in a direction opposite to that of the radial scanning direction.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/02411

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G11B7/09

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, IBM-TDB, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 17311 A (BUECHLER CHRISTIAN ;ZUCKER FRIEDHELM (DE); THOMSON LICENSING SA (F) 28 February 2002 (2002-02-28) page 5 -page 27; figures 1-6 ---	1-4
X	EP 0 745 982 A (PIONEER ELECTRONIC CORP) 4 December 1996 (1996-12-04) page 7 -page 8; figures 4,5 ---	1-4, 14
X	EP 0 865 036 A (RICOH KK) 16 September 1998 (1998-09-16) column 4; figure 1B ---	1, 14
X	EP 0 698 880 A (NIPPON CONLUX CO LTD) 28 February 1996 (1996-02-28) column 7 -column 8; figure 2 --- -/--	1, 14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 013, no. 269 (P-888), 21 June 1989 (1989-06-21) -& JP 01 060826 A (FUJITSU GENERAL LTD), 7 March 1989 (1989-03-07) abstract; figure 2 ----	1,14
X	PATENT ABSTRACTS OF JAPAN vol. 013, no. 253 (P-883), 13 June 1989 (1989-06-13) -& JP 01 050247 A (FUJITSU GENERAL LTD), 27 February 1989 (1989-02-27) abstract; figure 4 -----	1,14

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